

Notice of Allowability

Application No.

10/731,398

Examiner

David A Reifsnyder

Applicant(s)

HOLLAND, HERBERT W.

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to December 10, 2003.
2. ☒ The allowed claim(s) is/are 1-33.
3. ☒ The drawings filed on 10 December 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

REASONS FOR ALLOWANCE

The main reason for the allowance of claims 1-6 is because the instantly claimed method for providing magnetic fluid treatment at a plurality of distinct points as claimed in independent claim number 1 is neither anticipated or rendered obvious by the prior art of record.

The main reason for the allowance of claims 7-27 is because the instantly claimed apparatus for providing magnetic fluid treatment at a plurality of distinct points as claimed in independent claim number 7 is neither anticipated or rendered obvious by the prior art of record.

The main reason for the allowance of claim 28 is because he instantly claimed method of treating a fluid, comprising the steps of establishing the flow of a fluid to be treated along a path extending through a first non-magnetically conductive inlet conduit segment, a first magnetically conductive conduit segment downstream of the inlet segment, a second non-magnetically conductive coupling conduit segment downstream of the first magnetically conductive conduit segment, a second magnetically conductive conduit segment downstream of the coupling segment and a third non-magnetically conductive outlet conduit segment downstream of the second magnetically conductive conduit segment; and establishing magnetic fields having lines of flux directed along the flow path of the fluid and concentrated within the inlet conduit

segment, within the first magnetically conductive conduit segment, within the coupling conduit segment, within the second magnetically conductive conduit segment and within the outlet conduit segment; is nether rendered obvious or anticipated by the prior art of record.

The main reason for the allowance of claims 29-33 is because the instantly claimed apparatus for treating a fluid, comprising: a conduit to receive a flow of a fluid to be treated, the conduit having a first non-magnetically conductive inlet conduit segment, a first magnetically conductive conduit segment downstream of the inlet segment, a second non-magnetically conductive coupling conduit segment downstream of the first magnetically conductive conduit segment, a second magnetically conductive conduit segment downstream of the coupling segment and a third non-magnetically conductive outlet conduit segment downstream of the second magnetically conductive conduit segment; a first electrical conductor coiled around the first magnetically conductive conduit segment of said conduit with the coils oriented substantially orthogonal to the fluid flow, the first coiled conductor forming an electromagnet establishing a magnetic field having lines of flux directed along the flow path of the fluid and concentrated within the inlet conduit segment, within the first magnetically conductive conduit segment, and within the coupling conduit segment; a second electrical conductor coiled around the second magnetically conductive conduit segment of said conduit with the coils oriented substantially orthogonal to the fluid flow, the second coiled conductor forming an electromagnet establishing a magnetic field

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having lines of flux directed along the flow path of the fluid and concentrated within the coupling conduit segment, within the second magnetically conductive conduit segment, and within the outlet conduit segment; and a supply of electrical power coupled to the coiled electrical conductors to energize the electromagnets and produce the magnetic fields; is nether rendered obvious or anticipated by the prior art of record.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Da Baat Doelman, Woodhouse, Niessen and Vermeiren who all disclose methods and apparatus for magnetically treating fluids with electromagnets.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A Reifsnyder whose telephone number is (571) 271-1145. The examiner can normally be reached on M-F 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda M Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David A Reifsnyder
Primary Examiner
Art Unit 1723

DAR